



UNITED STATES PATENT AND TRADEMARK OFFICE

MN
UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/867,363	05/29/2001	Chidambaram Krishnan	010094	5659
23696	7590	05/30/2007		
QUALCOMM INCORPORATED 5775 MOREHOUSE DR. SAN DIEGO, CA 92121			EXAMINER MOORTHY, ARAVIND K	
			ART UNIT 2131	PAPER NUMBER
			NOTIFICATION DATE 05/30/2007	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

us-docketing@qualcomm.com
kscanla@qualcomm.com
nanm@qualcomm.com

Office Action Summary	Application No. 09/867,363	Applicant(s) KRISHNAN ET AL.	
	Examiner Aravind K. Moorthy	Art Unit 2131	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 March 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-49, 52-57, 60-65 and 68-105 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-49, 52-57, 60-65 and 68-105 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>See attachment</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This is in response to the communications filed on 19 March 2007.
2. Claims 1-49, 52-57, 60-65 and 68-73 are pending in the application.
3. Claims 1-49, 52-57, 60-65 and 68-105 have been rejected.
4. Claims 50, 51, 58, 59, 66 and 67 have been cancelled.

Information Disclosure Statement

5. The examiner has considered the information disclosure statement filed on 19 March 2007.

Response to Arguments

6. Applicant's arguments filed 17 March 2007 have been fully considered but they are not persuasive.

On page 22, the applicant argues that Thakker does not disclose any techniques for controlling power to a SIM in a WCD.

The examiner respectfully disagrees. Thakker discloses SIM 16 may include a CPU 26 or other control logic and memory 28 that stores a variety of user information such as subscriber/user identification, telephone numbers, messages, billing codes, encryption sequences, secure applications and the like. SIM 16 includes an I/O port that receives data (SIM_IO) transmitted by UART circuit 24, a clock input (SIM_CLK), and a reset input (SIM_RST). SIM power supply 30 generates power from a battery voltage $V_{\text{sub.BAT}}$ associated with a battery connected to power supply 30, and applies it to SIM 16. SIM power supply 30 of FIG. 2 may correspond to power supply 17 of FIG. 1. A SIM interface circuit 32 provides driver circuitry. In particular, SIM interface circuit 32 permits modem 14 to transmit data to and receive data from SIM 16 over a common data line, indicated by UIM_IO. As

Art Unit: 2131

further shown in FIG. 2, SIM power supply 30 also may generate power for SIM interface circuit 32.

On page 23, the applicant argues that Thakker does not disclose supplying power to the SIM when a request is pending for service by the SIM and supplying power to the SIM when a software module running on the WCD requests maintenance to the SIM.

The examiner respectfully disagrees. Thakker discloses the telecommunication system 60 is seen to include a PLMN or GSM network 40 adapted to communicate with the MS 50 and to cause it to switch from a limited operations low power mode to a normal operating mode when a call placed to an MSISDN number associated with the limited operations low power mode is detected. The GSM network 40 uses standard wireless signaling protocols between the MS 50 and the MSC 42 to detect, for instance, if the subscriber has placed the MS 50 in the limited operations low power mode and to transmit A-interface messages to the MS 50 which carry the POP message. The POP message is received by the MS 50 and used to switch to a normal operating mode of the MS 50.

On page 25, the applicant argues that Thakker fails to suggest supplying power to the SIM when a request is pending for service by the SIM, supplying power to the SIM when a software module running on the WCD requests maintenance of power to the SIM, and terminating power to the SIM when no request is pending.

The examiner respectfully disagrees. Thakker discloses that once the GSM network 40 has sent a POP mode acknowledgment message (at signal sequence 94) to the MS 50, the MS 50 will remain in the limited operations low power mode, listening only for POP messages from the GSM network 40. While in POP mode, the MS 50 operates using minimal power where, for

Art Unit: 2131

example, only critical operations are maintained and the display is blank and no outgoing calls are made unless POP mode is disabled, using the POP OFF button 74, for example.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-5, 7-9, 16-21, 23-25, 32-37, 39-41, 48, 74-78, 80-82, 89-94, 96-98 and 105 are rejected under 35 U.S.C. 102(e) as being anticipated by Thakker et al U.S. Patent No. 6,487,425 B1.

As to claims 1, 17, 33, 74 and 90, Thakker et al discloses a method for controlling power to a subscriber identity module (SIM) in a wireless communication device (WCD), the method comprising:

supplying power to the SIM [column 5, lines 28-37] when a request is pending for service by the SIM [column 6, lines 28-49];

supplying power to the SIM when a software module running on the WCD requests maintenance of power to the SIM [column 6, lines 28-49]; and

terminating power to the SIM when no request is pending for service by the SIM and no software module running on the WCD requests maintenance of power to the SIM [column 7, lines 42-64].

Art Unit: 2131

As to claims 2, 18, 34, 75 and 91, Thakker et al discloses re-initiating supply of power to the SIM following termination of power to the SIM when a request from the WCD is pending for service by the SIM [column 6, lines 28-49].

As to claims 3, 19, 35, 76 and 92, Thakker et al discloses determining whether a request from the WCD is pending for service by the SIM based on inspection of a request queue associated with the SIM [column 8, lines 47-62].

As to claims 4, 20, 37, 77 and 93, Thakker et al discloses re-initiating supply of power to the SIM when a software module running on the WCD requests supply of power to the SIM [column 6, lines 28-49].

As to claims 5, 21, 37, 78 and 94, Thakker et al discloses determining whether a software module running on the WCD requests supply of power to the SIM based on polling of any of a plurality of software modules running on the WCD [column 8, lines 47-62].

As to claims 7, 23, 39, 80 and 96, Thakker et al discloses supplying power to the SIM includes maintaining power to the SIM [column 8, lines 47-62].

As to claims 8, 24, 40, 81 and 97, Thakker et al discloses that the SIM includes an interface circuit that interfaces with the WCD, and terminating power to the SIM includes terminating power to the interface circuit [column 7, lines 42-64].

As to claims 9, 25, 41, 82 and 98, Thakker et al discloses that the SIM includes a power supply line coupled to the WCD, and terminating power to the SIM includes terminating power to the power supply line [column 7, lines 42-64].

As to claims 16, 32, 48, 89 and 105, Thakker et al discloses that the WCD is one of a cellular radiotelephone, a satellite radiotelephone, a PCMCIA card, and a PDA that

Art Unit: 2131

communicates according to one of the CDMA standard, the GSM standard, and the WCDMA standard [column 4, lines 42-54].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 6, 22, 38, 79 and 95 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thakker et al U.S. Patent No. 6,487,425 B1 as applied to claims 1, 17, 33, 74 and 90 above, and further in view of Timonen et al U.S. Patent No. 6,741,848 B2.

As to claims 6, 22, 38, 79 and 95, Thakker et al does not teach asserting respective bits in a data structure when corresponding software modules running on the WCD request supply of power to the SIM. Thakker et al does not teach determining whether a software module running on the WCD requests supply of power to the SIM based on analysis the data structure. Thakker et al does not teach when any of the bits in the data structure is asserted, supplying power to the SIM.

Timonen et al teaches asserting respective bits in a data structure [column 3, lines 3-20]. Timonen et al teaches analyzing the data structure [column 3, lines 21-32].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Thakker et al so that respective bits in a data structure would have been asserted when corresponding software modules running on the WCD

Art Unit: 2131

requested supply of power to the SIM. It would have been determined whether a software module running on the WCD requested supply of power to the SIM by analyzing the data structure. When any of the bits in the data structure were asserted, power would have been supplied to the SIM.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Thakker et al by the teaching of Timonen et al because it continues to increase computer system functionality as user needs evolve, modifications to existing components can be prohibitively costly and can limit backward-compatibility. To date, no one has designed a computer system to transmit more than eight bits of information on an eight-bit serial bus [column 3, lines 49-54].

9. Claims 10, 26, 42, 83 and 99 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thakker et al U.S. Patent No. 6,487,425 B1 as applied to claims 1, 17, 33, 74 and 90 above, and further in view of Eber et al U.S. Patent No. 6,595,414 B1.

As to claims 10, 26, 42, 83 and 99, Thakker et al teaches that the SIM includes an interface circuit that interfaces with the WCD, as discussed above.

Thakker et al does not teach that the interface circuit includes a clock input to the SIM. Thakker et al does not teach that terminating power to the SIM includes terminating power after terminating a clock signal to the clock input.

Eber et al teaches that the interface circuit that includes a clock input [column 8, lines 14-36]. Eber et al teaches terminating power includes terminating power after terminating a clock signal to the clock input [column 8, lines 14-36].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Thakker et al so that the interface circuit would have included a clock input to the removable user identity module. Power would have been terminated to the SIM and included terminating power after terminating a clock signal to the clock input.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Thakker et al by the teaching of Eber et al because it limits the range over which communication is possible between the known data carrier and a write/read station adapted to cooperate with this data carrier [column 2, lines 1-24].

10. Claims 11-13, 27-29, 43-45, 84-86 and 100-102 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thakker et al U.S. Patent No. 6,487,425 B1 as applied to claims 1, 17, 33, 74 and 90 above, and further in view of Barvesten, Mats Olof EP 0607767 A1 (hereinafter Barvesten).

As to claims 11-13, 27-29, 43-45, 84-86 and 100-102, Thakker et al teaches that the SIM is one of a removable user identification module (R-UIM) [column 5, lines 28-37] and a GSM SIM [column 5, lines 28-37].

Thakker et al does not teach storing a user access code associated with the SIM in a memory associated with the WCD in response to a user entering the access code at an initial power up of the WCD. Thakker et al does not teach retrieving the user access code from the memory when power is supplied to the SIM following the termination of power to the SIM. Thakker et al does not teach using the retrieved user access code in a security authorization process in the WCD to authorize use of secure features of the SIM. Thakker et al does not teach

Art Unit: 2131

storing the user access code includes storing the user access code upon the termination of power to the SIM.

Barvesten teaches storing a user access code associated with the SIM in a memory associated with the WCD in response to a user entering the access code at an initial power up of the WCD [pages 3 and 4]. Barvesten teaches using the retrieved user access code in a security authorization process in the WCD to authorize use of secure features of the SIM [pages 3 and 4].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Thakker et al so that a user access code (PIN) would have been associated with the SIM in a memory associated with the WCD in response to a user entering the access code at an initial power up of the WCD. The user access code would have been retrieved from the memory when power was supplied to the SIM following the termination of power to the SIM. The retrieved user access code would have been used in a security authorization process in the WCD to authorize use of secure features of the SIM. The storing of the user access code would have included storing the user access code upon the termination of power to the SIM.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Thakker et al by the teaching of Barvesten because it protects the phone and features of the SIM as well [page 2].

Art Unit: 2131

11. Claims 14, 15, 30, 31, 46, 47, 87, 88, 103 and 104 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thakker et al U.S. Patent No. 6,487,425 B1 and Barvesten EP 0607767 A1 as applied to claims 1, 17, 33, 74 and 90 above, and further in view of Timonen et al U.S. Patent No. 6,741,848 B2.

As to claims 14, 15, 30, 31, 46, 47, 87, 88, 103 and 104, the Thakker-Barvesten combination teaches that the user access code is a personal identification number (PIN), as discussed above. Thakker et al teaches that the SIM is one of a removable user identification module (R-UIM) and a GSM SIM, as discussed above.

The Thakker-Barvesten combination does not teach that the SIM is a universal subscriber identification module (USIM).

Timonen et al teaches a SIM that is a universal subscriber identification module (USIM) [column 16, lines 14-23].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified the Thakker-Barvesten combination so that the SIM would have been replaced by a universal identification module (USIM).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified the Thakker-Barvesten combination by the teaching of Timonen et al because it can be used for user identification and interoperability between mobile communications systems and the GSM system [column 16, lines 14-23].

Art Unit: 2131

12. Claims 49, 52, 53, 55-57, 60, 61, 63-65, 68, 69 and 71-73 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thakker et al U.S. Patent No. 6,487,425 B1 in view of Barvesten, Mats Olof EP 0607767 A1 (hereinafter Barvesten).

As to claims 49, 52, 53, 57, 60, 61, 65, 68, 69 and 73, Thakker et al teaches that the SIM is one of a removable user identification module (R-UIM) [column 5, lines 28-37] and a GSM SIM [column 5, lines 28-37].

Thakker et al does not teach storing a user access code associated with the SIM in a memory associated with the WCD in response to a user entering the access code at an initial power up of the WCD. Thakker et al does not teach retrieving the user access code from the memory when power is supplied to the SIM following the termination of power to the SIM. Thakker et al does not teach using the retrieved user access code in a security authorization process in the WCD to authorize use of secure features of the SIM. Thakker et al does not teach storing the user access code includes storing the user access code upon the termination of power to the SIM.

Barvesten teaches storing a user access code associated with the SIM in a memory associated with the WCD in response to a user entering the access code at an initial power up of the WCD [pages 3 and 4]. Barvesten teaches using the retrieved user access code in a security authorization process in the WCD to authorize use of secure features of the SIM [pages 3 and 4].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Thakker et al so that a user access code (PIN) would have been associated with the SIM in a memory associated with the WCD in response to a user entering the access code at an initial power up of the WCD. The user access code would

Art Unit: 2131

have been retrieved from the memory when power was supplied to the SIM following the termination of power to the SIM. The retrieved user access code would have been used in a security authorization process in the WCD to authorize use of secure features of the SIM. The storing of the user access code would have included storing the user access code upon the termination of power to the SIM.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Thakker et al by the teaching of Barvesten because it protects the phone and features of the SIM as well [page 2].

As to claims 55, 63 and 71, Thakker et al teaches that the SIM is a GSM SIM [column 5, lines 28-37].

As to claims 56, 64 and 72, Thakker et al discloses that the WCD is one of a cellular radiotelephone, a satellite radiotelephone, a PCMCIA card, and a PDA that communicates according to one of the CDMA standard, the GSM standard, and the WCDMA standard [column 4, lines 42-54].

Art Unit: 2131

13. Claims 54, 62 and 70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thakker et al U.S. Patent No. 6,487,425 B1 and Barvesten EP 0607767 A1 as applied to claims 49, 57 and 65 above, and further in view of Timonen et al U.S. Patent No. 6,741,848 B2.

As to claims 54, 62 and 70, the Thakker-Barvesten combination teaches that the user access code is a personal identification number (PIN), as discussed above. Thakker et al teaches that the SIM is one of a removable user identification module (R-UIM) and a GSM SIM, as discussed above.

The Thakker-Barvesten combination does not teach that the SIM is a universal subscriber identification module (USIM).

Timonen et al teaches a SIM that is a universal subscriber identification module (USIM) [column 16, lines 14-23].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified the Thakker-Barvesten combination so that the SIM would have been replaced by a universal identification module (USIM).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified the Thakker-Barvesten combination by the teaching of Timonen et al because it can be used for user identification and interoperability between mobile communications systems and the GSM system [column 16, lines 14-23].

Conclusion

14. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

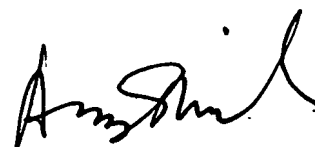
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aravind K. Moorthy whose telephone number is 571-272-3793. The examiner can normally be reached on Monday-Friday, 8:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R. Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2131

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Aravind K Moorthy
May 21, 2007


AYAZ SHEIKH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100